

In The Claims:

~~Please cancel claims 23-34 and add new claims 35-44.~~ <sup>23-31</sup>

<sup>23</sup>  
~~35~~. A speech reference enrollment method, comprising the steps  
of:

- (a) receiving a first utterance of a vocabulary word;
- (b) extracting a plurality of features from the first utterance;
- (c) determining a signal to noise ratio of the first utterance;
- (d) when the signal to noise ratio is less than a predetermined signal  
to noise ratio, increasing a gain of a voice amplifier;
- (e) receiving a second utterance of the vocabulary word; and
- (f) extracting the plurality of features from the second utterance.

<sup>24</sup>  
~~36~~. The method of claim <sup>23</sup>~~35~~, further including the steps of:

(g) determining a first similarity between the plurality of features from the first utterance and the plurality of features from the second utterance;

(h) when the first similarity is less than a predetermined similarity, requesting a user to speak a third utterance of the vocabulary word;

(i) extracting the plurality of features from the third utterance;

(j) determining a second similarity between the plurality of features from the first utterance and the plurality of features from the third utterance; and

(k) when the second similarity is greater than or equal to the predetermined similarity, forming a reference for the vocabulary word.

<sup>25</sup>  
~~37~~. The method of claim <sup>24</sup>~~36~~, further including the steps of:

(l) when the second similarity is less than the predetermined similarity, determining a third similarity between the plurality of features from the second utterance and the plurality of features from the third utterance;

(m) when the third similarity is greater than or equal to the predetermined similarity, forming the reference for the vocabulary word.

<sup>26.</sup>  
~~38.~~ The method of claim <sup>23</sup>~~35~~, wherein step (f) further includes the steps of:

(f1) determining a signal to noise ratio of the first utterance;

(f2) when the signal to noise ratio is less than a predetermined signal to noise ratio, increasing a gain of a voice amplifier and proceeding to step (e);

<sup>27.</sup>  
~~39.~~ A speech recognition, verification and enrollment system, comprising:

an adjustable gain amplifier connected to an input speech signal;

an amplitude comparator having a first input connected to the output of the adjustable gain amplifier and a second input connected to a saturation threshold; and

a feature comparator is connected to the output of the feature extractor, where the gain input can be adjusted both up and down during the speech input.

<sup>28.</sup>  
~~40.~~ The system of claim <sup>27</sup>~~39~~, further including,

a feature extractor is connected to the output of the adjustable gain amplifier;

<sup>29.</sup>  
~~41.~~ The system of claim <sup>27</sup>~~39~~, further including,

a signal to noise comparator having a first input connected to the signal to noise meter and a second input connected to a threshold, an output of the signal to noise comparator is connected to a gain input of the adjustable gain amplifier.

<sup>30.</sup>  
~~42.~~ The system of claim <sup>27</sup>~~39~~, further including an amplitude threshold detector connected to the input speech signal.

<sup>31.</sup>  
~~43.~~ The system of claim <sup>30</sup>~~42~~, further including a timer connected to an output of the amplitude threshold detector.

<sup>32.</sup>  
~~44.~~ The system of claim <sup>28</sup>~~40~~, wherein the feature extractor forms an amplitude histogram.